

## Abstract

An optical ring network structure comprising two or more network elements, and a single optical fibre connection between each pair of neighbouring network elements for carrying an optical signal, wherein the ring network structure is arranged in a manner such that, in use, band allocation utilising multiplexing on each single fibre connection is chosen in a manner such that groups of wavelengths for bi-directional data transfer and for bi-directional redundant data transfer for protection respectively are provided on each single fibre connection.